

Features

- Featuring with industrial-grade IPQ4029 chipset
- Integrated with 2x 2.5G high power (27 dbm per chain)
- 2x2.4G high power (27dbm per chain) Radio module
- Support 4.940GHz to 5.805GHz FrequencyRange;
- Support 2.412GHz to 2.482GHz
- Support 2x5G MMCX Connectors and 2x2.4G MMCX
- 5MHz/10MHz/20MHz/40MHz/80MHzBandwidth
- Support 11ABGN/AC
- RoHS compliance ensure a high level
- protection of human health and the environment from risks that can be posed by chemicals



Applications

- Security Surveillance
- Commercial radio coverage
- Hotel Wireless application
- Country coverage
- Forest fire protection engineering
- Some special scene application

Product Description

DR4029 based on IPQ4029 chipset is an enterprise wireless module integrated with 2x2 5G high power Radio module and 2x2 2.4G high power Radio module designed specifically to provide users with mobile access to high- bandwidth video streaming, voice, and data transmission for office and challenging RF environment in factories, warehouses establishment.

Absolute Maximum Rating

Parameter	Rating	Unit
Supply Voltage	24V~48	V
Operating Temperature Range	-40 to +70	°C
Storage Temperature Range	-45 to +105	°C
Operating Humidity Range	5 to +95 (non-condensing)	%
Storage Humidity Range	0 to +90 (non-condensing)	%

Hardware Specifications

Symbol	Parameter
CPU	IPQ4029 (Quad core ARM Cortex A7 at 716.8 MHz)
Antenna Connector	2 x 5G MMCX connectors;2x2 .4G MMCX
10/100/1000Mbps Gigabit Ethernet	2xRJ45
SFP connector	1 xSFP fiber module connector (optional)
3G/4G connector	1 x minipcie 3 G/4 G connector support with two sim card
USB connector	1xUSB 3 .0 connector
POE	24V~48V passive POE
DC Jack	24V~48V power supply
ROHS Compliance	yes
Dimension	115mm x 105mm x 16mm
Max Power	48.1V x 0.180A= 8.658W
Nor Flash	2MB~32MB
Nand Flash	128MB
DDR	256MB~512MB

Radio TX Specifications (5180MHz-5825MHz)

Operating Mode	Data Rate	Power		Tolerance
		1 Chain	2 Chains	
802.11a	6 Mbps	27dBm	30dbm	±2dB
	54 Mbps	23dBm	26dbm	±2dB
802.11n HT20	MCS0 , MCS8	26dBm	29dbm	±2dB
	MCS7 , MCS15	22dBm	25dbm	±2dB
802.11n HT40	MCS0 , MCS8	25dBm	28dbm	±2dB
	MCS7 , MCS15	21dBm	24dbm	±2dB
802.11ac	MCS0 , MCS10 , MCS20	25dBm	28dbm	±2dB
	MCS9 , MCS19 , MCS29	19dBm	22dbm	±2dB

Radio TX Specifications (5180MHz-5825MHz)

Operating Mode	Data Rate	Sensitivity
802.11a	6 Mbps	-96dBm
	54 Mbps	-78dBm
802.11n HT20	MCS0 , MCS8	-93dBm
	MCS7 , MCS15	-73dBm
802.11n HT40	MCS0 , MCS8	-90dBm
	MCS7 , MCS15	-70dBm
802.11AC HT40	MCS0 , MCS10 , MCS20	-90dBm
	MCS9 , MCS19 , MCS29	-67dBm
802.11AC HT80	MCS0 , MCS10 , MCS20	-88dBm
	MCS9 , MCS19 , MCS29	-62dBm

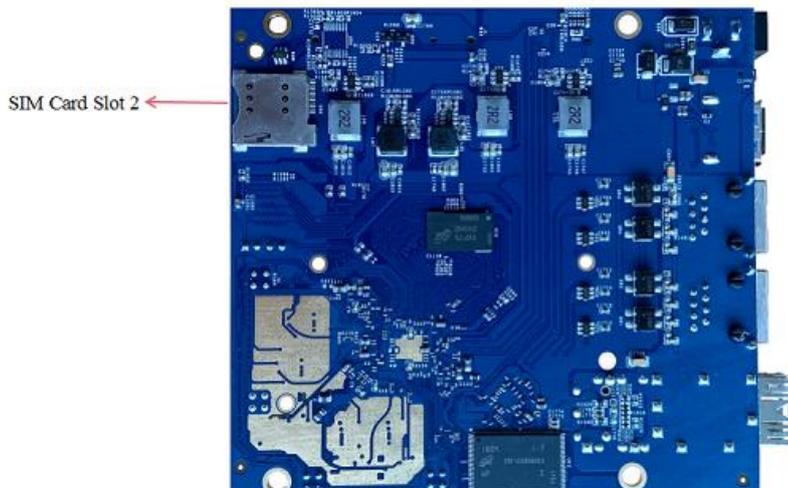
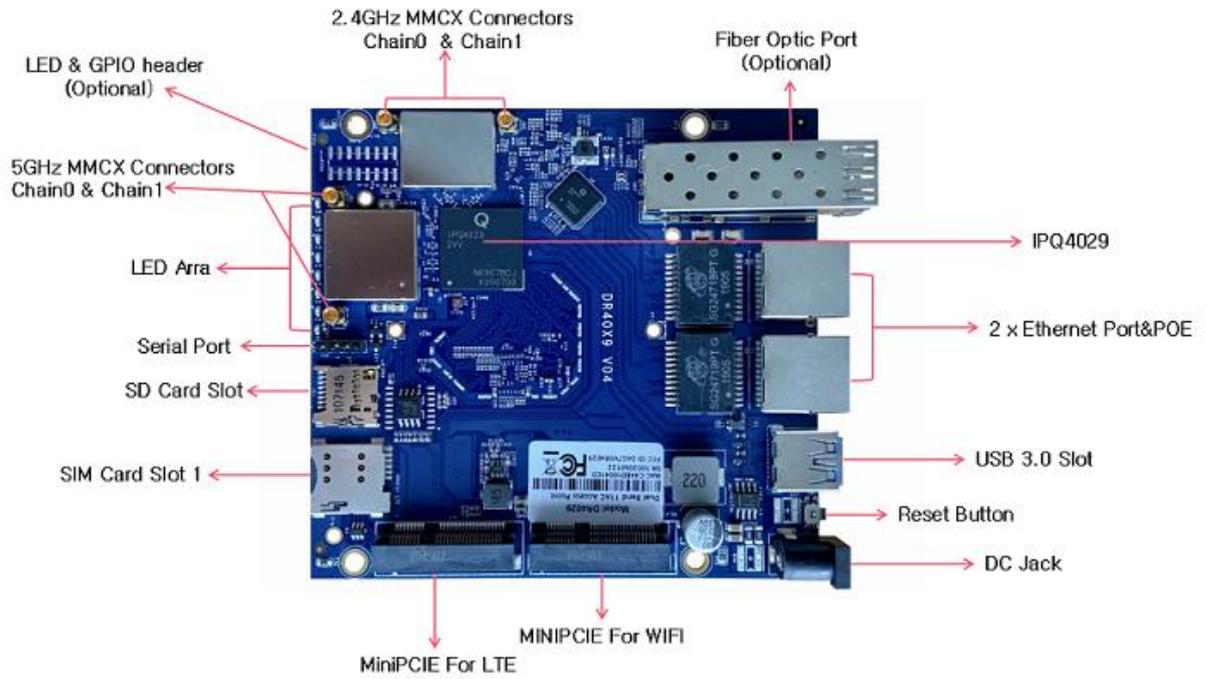
Radio RX Specifications (2412MHz-2482MHz)

Operating Mode	Data Rate	Power		Tolerance
		1 Chain	2 Chains	
802.11g	6 Mbps	27dbm	30dbm	±2dB
	54 Mbps	25dbm	28dbm	±2dB
802.11n HT20	MCS0 , MCS8	26dbm	29dbm	±2dB
	MCS7 , MCS15	25dbm	28dbm	±2dB
802.11n HT40	MCS0 , MCS8	26dbm	29dbm	±2dB
	MCS7 , MCS15	24dbm	27dbm	±2dB

Radio RX Specifications (2412MHz-2482MHz)

Operating Mode	Data Rate	Sensitivity
802.11g	6 Mbps	-96dBm
	54 Mbps	-78dBm
802.11n HT20	MCS0 , MCS8	-93dBm
	MCS7 , MCS15	-73dBm
802.11n HT40	MCS0 , MCS8	-90dBm
	MCS7 , MCS15	-70dBm

Interface MAP



LED&GPIO Header

Item	Information	Note
1	PWR LED	
2	Eth1 LED	
3	Eth2 LED	
4	2.4G LED	GPIO32
5	5G LED	GPIO50
6	Strength LED	GPIO36
7	Strength LED	GPIO39
8	NC	
9	GND	
10	Uart1_TX	GPIO8
11	Uart1_RX	GPIO9
12	NC	
13	NC	
14	NC	
15	NC	
16	PWR	

Serial Port

Item	Information	Note
1	PWR	
2	Uart0 TX	
3	Uart0 RX	
4	GND	

GPIO

Item	Information	Note
GPIO11	Control for the switch of SIM cards	

Block diagrama

